

IBFS File No. SAT-MS-20100628-00160

## II. BACKGROUND

2. Intelsat began providing C-band service from the 129° W.L. orbital location in 2004, using its C/Ku-band Galaxy 27 space station.<sup>2</sup> On January 4, 2010, Intelsat filed an application to move Galaxy 27 to another orbital location.<sup>3</sup> On January 20, 2010, Intelsat filed an application for authority to relocate its Galaxy 12 C-band space station from 122.9° W.L. to 129° W.L.<sup>4</sup> Intelsat stated that it planned to have Galaxy 12 in operation at 129° W.L. in mid-April 2010, enabling it to continue to provide C-band service at that location after it redeployed Galaxy 27.<sup>5</sup>

3. In April 2010, Intelsat's Galaxy 15 C-band space station, operating at 133° W.L., experienced a technical anomaly that resulted in Intelsat being unable to command the satellite. This caused Galaxy 15 to drift out of its east/west station keeping box and rendered it incapable of providing service.<sup>6</sup> In May 2010, Intelsat amended its modification application for Galaxy 12 to change the requested orbital location from 129° W.L. to 133° W.L.<sup>7</sup> The relocation was necessary, Intelsat stated, to allow Galaxy 12 to assume Galaxy 15's customer traffic and avoid any degradation to customer service.<sup>8</sup>

4. On June 28, 2010, Intelsat filed a petition requesting authority to suspend C-band and Ku-band operations at the 129° W.L. orbital location for more than 90 days pursuant to Section 25.161(c) of the Commission's rules.<sup>9</sup> This rule provides that a license will automatically terminate upon removal or modification of the facilities which renders the station not operational for more than 90 days, unless

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<sup>2</sup> The Commission authorized the assignment of Galaxy 27's license from Loral Satellite, Inc. to Intelsat in 2004. Loral Satellite, Inc., *Order and Authorization*, 19 FCC Rcd 2402 (Int'l Bur. 2004).

<sup>3</sup> IBFS File No. SAT-STA-20100105-00004. Galaxy 27 (Call Sign S2159) is now operating at 45.10° E.L. under German authority. Intelsat North America LLC, IBFS File No. SAT-T/C-20100112-00009 (granted July 30, 2010).

<sup>4</sup> PanAmSat Licensee Corp., IBFS File No. SAT-MOD-20100120-00013 (*January 2010 Modification Application*). PanAmSat Corp. initially held the license for Galaxy 12. See PanAmSat Licensee Corp., IBFS File No. SAT-MOD-20080630-00133 (grant stamped Sept. 8, 2008). In December 2010, the Commission authorized various internal assignments and transfers that resulted in a majority of Intelsat's and its affiliates' authorizations, including those held by PanAmSat Licensee Corp., being held by a single subsidiary, Intelsat Licensee Corp. See IBFS File No. SAT-T/C-20101203-00253 (granted Dec. 23, 2010).

<sup>5</sup> *January 2010 Modification Application* at 2.

<sup>6</sup> See PanAmSat License Corp., IBFS File No. SAT-STA-20100409-00071 (grant stamped Apr. 9, 2010).

<sup>7</sup> See PanAmSat License Corp., IBFS File No. SAT-AMD-20100514-00102 (grant stamped Oct. 15, 2010) (*May 2010 Amendment*). Galaxy 12 assumed Galaxy 15's customer traffic by April 20, 2010, pursuant to special temporary. IBFS File No. SAT-STA-20100408-00070 (granted Apr. 9, 2010).

<sup>8</sup> PanAmSat License Corp., *May 2010 Amendment*, Legal Narrative at 2 (unnumbered).

<sup>9</sup> 47 C.F.R. § 25.161(c).

specific authority is requested.<sup>10</sup> Intelsat states that it intended to relocate Galaxy 12 to the 129° W.L. orbital location shortly after it redeployed Galaxy 27, but was forced to change its plans as a result of Galaxy 15's "extraordinary and unforeseen" anomaly.<sup>11</sup> Intelsat stated that if it could recover Galaxy 15 it would operate the satellite at 133° W.L. and would redeploy to 129° W.L. If Galaxy 15 could not be recovered, Intelsat stated it would begin the process of securing another satellite to move to 133° W.L. in the fall of 2010. Intelsat noted this process could take from 30-36 months, after which it would then move Galaxy 12 to 129° W.L. Intelsat states that under either scenario, it planned to move Galaxy 12 to 129° W.L. well in advance of the five-year time frame afforded to licensees to construct and launch a new satellite.<sup>12</sup> Intelsat later supplemented its Petition to eliminate the portion of the request pertaining to suspending operations in the Ku-band.<sup>13</sup>

5. In December 2010, Intelsat reported that Galaxy 15 had resumed accepting commands.<sup>14</sup> Intelsat then asked for, and received authority, to drift Galaxy 15 to 93° W.L. for in-orbit testing.<sup>15</sup> In May 2011, Intelsat stated that it had recovered nominal operations of Galaxy 15 at the 93° W.L. orbital location and planned to return the space station to the 133° W.L. orbital location.<sup>16</sup> Galaxy 15 resumed normal operations at 133° W.L. in October 2011.<sup>17</sup> In the same month, Intelsat filed an application seeking authority to relocate Galaxy 12 to 129° W.L.<sup>18</sup>

### III. DISCUSSION

#### A. C-band Frequencies

6. Although Intelsat requests a favorable finding under Section 25.161(c) of the Commission's rules with respect to the C-band frequencies, we must analyze whether grant of its request is warranted under the Commission's policy regarding replacement satellites. We then address Intelsat's request for relief under Section 25.161(c).

7. *Replacement Policy.* The Commission has consistently said that orbital assignments confer no permanent rights of use. It has, however, recognized the importance of giving satellite operators assurances that they will be able to continue to serve their customers from the same orbital

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<sup>10</sup> Intelsat North America LLC, Petition for Specific Authority Under Section 25.161(c), IBFS File No. SAT-MS-20100628-00160 (*Intelsat Petition*).

<sup>11</sup> *Id.* at 2.

<sup>12</sup> *Id.* at 4. See 47 C.F.R. § 25.164(a).

<sup>13</sup> Letter to Marlene H. Dortch, Secretary, FCC, from Jennifer Hindin, Counsel for Intelsat Licensee LLC (June 21, 2012) (*Intelsat June 21 Letter*).

<sup>14</sup> Intelsat Licensee LLC, IBFS File No. SAT-STA-20110425-00076 (granted June 8, 2011).

<sup>15</sup> *Id.*

<sup>16</sup> Intelsat Licensee LLC, IBFS File No. SAT-STA-20110523-00094 (granted July 21, 2011).

<sup>17</sup> Letter to Marlene H. Dortch, Secretary FCC, from Susan Crandall, Intelsat Corporation (Nov. 3, 2011).

<sup>18</sup> Intelsat Licensee LLC, IBFS File No. SAT-MOD-20111011-00197.

location as older satellites are retired.<sup>19</sup> The Commission has stated that without this assurance, space station operators and their customers would be required to undertake the potentially disruptive and costly process of repointing antennas to space stations at different locations when older satellites are taken out of service. Thus, the Commission has stated it will generally authorize replacement satellites at the same orbital location as the older space station without considering competing applications.<sup>20</sup>

8. The Commission defines a replacement satellite as one that is “authorized to be operated at the same orbit location, in the same frequency bands, and with the same coverage area as one of the licensee’s existing satellites,” and is “scheduled to be launched so that it will be brought into use at approximately the same time, but no later than, the existing satellite is retired.”<sup>21</sup> Where a space station operator fails to replace a space station, the spectrum is made available to other parties for reassignment.

9. In situations where a satellite has a catastrophic in-orbit or launch failure, the Commission may authorize “emergency replacement” satellites without considering competing applications – even if there is some lapse in service. The Commission has authorized emergency replacement satellites in cases where the licensee has promptly filed an application to construct, launch, and operate a new satellite that will serve as a replacement, or has filed an application to move an in-orbit satellite into that location that will restore service promptly.<sup>22</sup>

10. Typically, the Commission has invoked the emergency replacement policy when a satellite fails during launch. Because satellites are generally expected to last about 15 years,<sup>23</sup> and are extremely expensive and time-consuming to build and launch,<sup>24</sup> satellite operators generally do not

<sup>19</sup> Amendment of the Commission’s Space Station Licensing Rules and Policies, *First Report and Order*, IB Docket No. 02-34, 18 FCC Rcd 10760, 10854-55 (2003) (*Space Station Licensing Reform Order*).

<sup>20</sup> See Assignment of Orbital Locations to Space Stations in the Domestic Fixed-Satellite Service, 3 FCC Rcd 6972, n. 31 (1988). See also Licensing of Space Stations in the Domestic Fixed-Satellite Service, 50 FR 36071, para 27 (Sept. 5, 1985); *Space Station Licensing Reform Order*, 18 FCC Rcd at 10854; GE American Communications Corp., *Order and Authorization*, 10 FCC Rcd 13775 at 13775-76 (Int’l Bur. 1995); and Loral SpaceCom Corp., *Order and Authorization*, 13 FCC Rcd 16348, 16440 (Int’l Bur., Sat. and Rad. Div. 1995).

<sup>21</sup> 47 C.F.R. § 25.165(e)(1) and (2).

<sup>22</sup> See, e.g., Loral Spacecom Corp., *Order and Authorization*, 13 FCC Rcd 16438 (Sat. Div. 1998) (granted application filed in April 1997 requesting authority to launch and operate a ground spare as an emergency replacement for the Satcom IV satellite that suffered an in-orbit failure in January 1997); Volunteers in Technical Assistance, *Order*, 12 FCC Rcd 3094 (Int’l Bur. 1997) (granted application filed in January 1996 to launch and operate an emergency replacement satellite for the VITASAT-1 satellite that was destroyed by launch failure in August 1995; replacement satellite to be launched by March 1997); American Telephone and Telegraph Company, *Order and Authorization*, DA 95-1972, 10 FCC Rcd 12132 (Int’l Bur. 1995) (authorizing the launch and operation of Telstar 402R by December 1995, which was to serve as an emergency replacement satellite for the Telstar 402 satellite lost shortly after its launch in September 1994); and Hughes Communications Galaxy, Inc., *Memorandum Opinion, Order and Authorization*, 8 FCC Rcd 5089 (1993) (granting Hughes’s October 1992 application to construct, launch, and operate an emergency replacement satellite by December 1994 to replace a satellite that failed in August 1992).

<sup>23</sup> Amendment of the Commission’s Space Station Licensing Rules and Policies, *First Report and Order*, 17 FCC Rcd 3847, 3895-96 (para. 143) (2002).

<sup>24</sup> Amendment of the Commission’s Space Station Licensing Rules and Policies, *Notice of Proposed Rulemaking and First Report and Order*, 17 FCC Rcd 3847, 3886 (2002).

construct spare satellites that could be substituted for a failed satellite in the event of a launch failure. Accordingly, if a satellite fails during launch, we have allowed the operator to promptly move an in-orbit satellite into the vacant location or to promptly begin to construct a new satellite it will launch into that location without considering competing applications. Similarly, if a satellite fails early in its life, and before the operator could be expected to begin making plans for a replacement, we would allow the operator to apply for and retain a replacement expectancy in cases where it promptly restores service from that orbital location.

11. Intelsat planned to move the C-band Galaxy 12 space station to the 129° W.L. orbital location to replace the C/Ku-band Galaxy 27 space station in April 2010.<sup>25</sup> Four days after Intelsat moved Galaxy 27, however, Intelsat's five year old Galaxy 15 satellite, which had been operating at the 133° W.L. orbital location, unexpectedly failed.<sup>26</sup> Intelsat states that it then decided to change its plans and use Galaxy 12 to restore service at the 133° W.L. orbital location rather than the 129° W.L. orbital location.<sup>27</sup> We recognize that Intelsat's decision to redeploy Galaxy 12 in this manner was a business decision. Nevertheless, we will not penalize Intelsat because it chose to use a satellite targeted for one location as an emergency replacement for a satellite that unexpectedly failed at another orbital location. As noted, satellite operators do not generally have spare satellites in reserve to replace satellites that unexpectedly fail. Under the circumstances, Intelsat decided that its customers would best be served by moving Galaxy 12 into the 133° W.L. location rather than leaving that location vacant, and instead leaving the 129° W.L. location vacant until it could recover Galaxy 15 or bring a new satellite into operation at 133° W.L.

12. Consequently, we find that Intelsat did not lose its C-band replacement expectancy at 129° W.L. simply by choosing to redeploy Galaxy 12 to 133° W.L. as an emergency replacement. Rather, consistent with our emergency replacement policy, we consider Intelsat's efforts to reinstitute C-band service at the 129° W.L. orbital location to determine whether Intelsat has retained a replacement expectancy to deploy another C-band satellite to that location despite the gap in service.

13. In this regard, we note that Intelsat thought there was a possibility it could re-establish command of Galaxy 15 in the August/September 2010 timeframe.<sup>28</sup> This was four to five months after the anomaly occurred. While Intelsat was not immediately successful recovering the satellite, it continued to make progress. In January 2011, Intelsat reported that Galaxy 15 had begun to accept commands and send telemetry signals, and requested authority to move Galaxy 15 to 93° W.L. for testing.<sup>29</sup> In February 2011, Intelsat asked for, and received authority, to begin drifting Galaxy 15 to 133.1° W.L., where it would operate as an in-orbit spare until it placed it back into service.<sup>30</sup> In September 2011, Intelsat filed a request to move Galaxy 15 back to 133° W.L., to operate the space

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<sup>25</sup> PamAmSat Licensee Corp., IBFS File No. SAT-AMD-20100514-00102 (granted Oct. 15, 2010).

<sup>26</sup> *Intelsat Petition* at 1.

<sup>27</sup> *Id.* at 2.

<sup>28</sup> *Id.* at 4. We note that Intelsat advised Satellite Division staff on a regular basis of ongoing progress made to recover Galaxy 15.

<sup>29</sup> Intelsat Licensee LLC, IBFS File No. SAT-STA-20110107-00007.

<sup>30</sup> Intelsat Licensee LLC, IBFS File No. SAT-STA-20110623-00118.

station pursuant to the existing authorization, and to transfer traffic from Galaxy 12 to Galaxy 15.<sup>31</sup> In October 2011, Intelsat filed an application to move Galaxy 12 to 129° W.L.<sup>32</sup> Galaxy 12 is currently operating at 129° W.L. pursuant to special temporary authority.<sup>33</sup> Thus, we find that Intelsat made continued, and ultimately successful, efforts to regain control of and restore service on Galaxy 15. These efforts enabled Intelsat to move Galaxy 12 to 129° W.L. as initially planned, as quickly as possible. Given these circumstances, we find that Intelsat has retained its replacement expectancy to operate a C-band space station at the 129° W.L. orbital location. In a separate action today, we grant Intelsat's November 2011 modification application to operate Galaxy 12 at the 129° W.L. orbital location.

14. *Section 25.161(c)*. While we have analyzed Intelsat's request under the Commission's replacement expectancy policy, we recognize that Intelsat relied on Section 25.161(c) of the Commission's rules in its Petition requesting authority to leave the 129° W.L. orbit location vacant. Section 25.161(c) states that a *station authorization* shall be automatically terminated upon "[t]he removal...of the facilities which renders the *station* not operational for more than 90 days, unless specific authority is requested."<sup>34</sup> Here, Intelsat redeployed Galaxy 27 from 129° W.L. to a different orbital location, where it is no longer operating under a U.S. station authorization. Further, Intelsat has not requested authority to retain its U.S. station authorization for Galaxy 27.<sup>35</sup> Thus, Section 25.161(c) does not apply in this case.

15. Even assuming Section 25.161(c) could be applied, it would not change the result. The Commission has stated that Section 25.161(c) is intended to avoid unacceptable lapses in service from a particular space station to customers, as well as to prevent warehousing of scarce orbit and spectrum resources.<sup>36</sup> These are the same policy considerations underlying the Commission's emergency replacement expectancy policy. Because Intelsat would have relocated Galaxy 12 to the 129° W.L. orbital location in April 2010 but for the Galaxy 15's unexpected anomaly, and made every effort to redeploy Galaxy 12 to 129° W.L. as quickly as possible, there are no conflicts with the Commission's policy against spectrum warehousing.

#### **B. Ku-Band Frequencies.**

16. Intelsat has not used the Ku-band frequencies at the 129° W.L. orbital location since it moved Galaxy 27 to another orbital location more than two years ago. Galaxy 12 has C-band capacity

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<sup>31</sup> Intelsat Licensee LLC, IBFS File No. SAT-STA-20110915-00181.

<sup>32</sup> Intelsat Licensee LLC, IBFS File No. SAT-MOD-20111011-00197.

<sup>33</sup> Intelsat began operating Galaxy 12 at 129° W.L. pursuant to special temporary authority in December 2011. *See* Intelsat Licensee LLC, IBFS File No. SAT-STA-2011118-00223 (granted Dec. 1, 2011) renewed in IBFS File No. SAT-STA-20111227-00252 (granted Jan. 19, 2012); SAT-STA-20120124-00009 (granted Feb. 9, 2012); SAT-STA-20120323-00060 (granted Apr. 18, 2012); and IBFS File No. 20120521-00086 (granted June 6, 2012).

<sup>34</sup> 47 C.F.R. § 25.161(c) (emphasis added).

<sup>35</sup> *See, e.g.,* SES Americom, Inc., *Memorandum Opinion and Order*, 21 FCC Rcd 14785 (Int'l Bur. 2006) and SES Americom, Inc., *Order and Authorization*, 21 FCC Rcd 3430, 3434 (Int'l Bur. 2006) (allowing SES to retain its license for the AMC-16 space station while it temporarily relocated AMC-16 to another orbital location and operated it pursuant to Canadian authority).

<sup>36</sup> *SES Americom, Inc.*, 21 FCC Rcd at 14788.

only. Intelsat has not applied for authority to operate a Ku-band satellite at 129° W.L. and has confirmed that it has no plans to use the Ku-band frequencies “at this time.”<sup>37</sup> Under these circumstances, allowing Intelsat to continue to retain a replacement expectancy for the Ku-band spectrum at the 129° W.L. orbital location would allow it to warehouse scarce orbital and spectrum resources to the exclusion of others. Thus, we conclude that Intelsat has lost its replacement expectancy for the 11.7-12.2 GHz and 14.0-14.5 GHz frequencies at 129° W.L., and we will make these frequencies available for reassignment.

#### IV. CONCLUSION AND ORDERING CLAUSES

17. Based on the foregoing, we find that Intelsat Licensee LLC has retained its replacement expectancy for the 3700-4200 MHz and 5925-6425 MHz frequency bands at the 129° W.L. orbital location. Accordingly, IT IS ORDERED, that Intelsat Licensee LLC’s Petition, IBFS File No. SAT-MS-20100628-00160, as supplemented, is GRANTED.

18. IT IS FURTHER ORDERED that Intelsat has lost its replacement expectancy for the 11.7-12.2 GHz and 14.0-14.5 GHz frequencies. Accordingly, the 11.7-12.2 GHz and 14.0-14.5 GHz frequencies at the 129° W.L. orbital location are available for reassignment pursuant to the Commission’s first-come, first-served licensing process, effective 2:00 EDT on Tuesday, October 2, 2012. At that time, applicants may file applications for new space stations, market access by non-U.S. licensed space stations, modifications to licensed space stations, or amendments to pending applications taking this announcement into account. Such applications filed prior to this date and time will be dismissed as premature without prejudice to refile.

19. This Order is issued pursuant to Section 0.261 of the Commission’s rules on delegated authority, 47 C.F.R. § 0.261, and is effective upon release.

FEDERAL COMMUNICATIONS COMMISSION

Robert G. Nelson  
Chief, Satellite Division  
International Bureau

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<sup>37</sup> *Intelsat June 21 Letter.*